

THE WHITE FLY IN APRIL

Press Bulletin Prepared By Dr. Berger
of the Experiment Station

The earliest opportunity in the year to introduce the fungus diseases of the whitefly larvae by the spore-spraying method will be about two to four weeks after the adult whiteflies of the spring brood have disappeared. In about ten days to two or three weeks after this, the eggs they have laid will have nearly all hatched, and the young larvae will be abundant beneath the leaves. This spring brood of adults generally emerges in March or early in April, so that the first brood of young larvae will be on the leaves at some time in April. To wait, before introducing fungus, until the whitefly larvae have advanced into the fourth or fifth stages, may result in partial failure, since these older larvae appear to be much more resistant to fungus diseases than the younger ones.

Arrangements in regard to supplies of fungus should be made early. For since much of the previous summer's crop of fungus either becomes badly weathered or peels off during the winter, and very little or no new fungus develops during that time, it may be difficult to get large quantities readily. (For methods of introducing fungus see Bul. 97.)

In groves in which fungus has only spread slightly, as diligent an effort should be made to spread it as in groves not having any fungus at all. While the natural agencies will no doubt gradually disseminate it after it is once there, these should not be alone depended upon; for it is quite an easy matter to spread the fungus artificially and thus aid the natural agencies. If we can get fungus started early, it has the whole summer in which to grow and spread, and will also furnish seed fungus for use later in the season. We should not hesitate to spread fungus at any subsequent time when young larvae are again present; say during June, July or August, and even later. The more fungus we sow, the more will grow; and the more rapid will be the destruction of the whitefly.

It sometime happens that the fungi cannot be applied, or that the grove needs immediate relief. In such cases it is advisable to reduce the number of whitefly by spraying with contact insecticides. While it has generally been recommended that spraying the whitefly with contact insecticides should be practiced in winter, observations made upon trees sprayed in November while most of the larvae were still immature, indicate that it may be possible to do very effective spraying at any time when the larvae are young. It would appear, therefore, that the time recommended for introducing fungus by the spore-spraying method would likewise be a good time to spray with contact insecticides. A spraying mixture of sufficient dilution to insure its being harmless to very tender foliage, would be effective in destroying these tender larvae; whereas even a strong mixture might be less effective in winter, or at any time when the larvae are well matured. It is, therefore, suggested that whenever it is found difficult or impossible to obtain fungus with which to infect the spring brood of whitefly larvae, the trees should be sprayed with some contact insecticide. This should reduce the numbers of the whitefly and allow the trees to thrive. Later in the season, when the young larvae are again abundant, the trees may be sprayed a second or a third time; or fungus may be introduced. These suggestions upon summer spraying with insecticides are also made for the benefit of those who may prefer to experiment with spraying before trying other measures. By spraying, of course, thorough spraying is meant. Whale-oil soap, as a spraying mixture, will probably be the least injurious to the fungus diseases of scales and whitefly.

If all Chinaberry and umbrella trees in a citrus growing community have not yet been eradicated, this should not be delayed beyond April. The reasons why these trees should

Free from Alcohol

Since May, 1906, Ayer's Sarsaparilla has been entirely free from alcohol. If you are in poor health, weak, pale, nervous, ask your doctor about taking this non-alcoholic tonic and alternative. If he has a better medicine, take his. Get the best always. This is our advice.

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We publish our formulas
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A sluggish liver means a coated tongue, a bad breath, and constipated bowels. The question is, "What is the best thing to do under such circumstances?" Ask your doctor if this is not a good answer: "Take laxative doses of Ayer's Pills."

Made by the J. C. Ayer Co., Lowell, Mass.

be destroyed were given in these columns last February.

It is not generally known to citrus growers that Florida has what is practically a local option law for the protection of citrus groves and other orchards against the whitefly and other insect pests and diseases. (See Chapter XIII, Statutes of Florida, 1906.) This law empowers the county commissioners to appoint a board to carry out its provisions. Any county wishing this law put into effect can have the board appointed when 40 per cent. of the fruit growers sign a petition to that effect. This board can compel the destruction of such food plants of the whitefly as Chinaberry and umbrella trees, and otherwise inaugurate repressive and quarantine measures against the whitefly.

Object to Strong Medicines

Many people object to taking the strong medicines usually prescribed by physicians for rheumatism. There is no need of internal treatment in any case of muscular or chronic rheumatism, and more than nine out of every ten cases of the disease are one or the other of these varieties. When there is no fever and little (if any) swelling, you may know that it is only necessary to apply Chamberlain's Liniment freely to get quick relief. Try it. For sale by Titusville Pharmacy.

Jolly the Parents.

"Why did you chuck that baby under the chin?" asked the man. "It is such an ugly little sinner." "That is why I chucked him," said the woman. "I wanted to make his parents feel happy. I always pet the ugly babies. Pretty babies get so much coddling from strangers that their parents take it as a matter of course. It is the fathers and mothers of homely babies who appreciate attention. Didn't you notice how pleased that couple looked? I don't suppose anybody ever petted that baby before except themselves. They'll think a lot more of the youngster after this."—New York Press.

WHY SO WEAK?

Kidney Troubles May be Sapping Your Life Away. Titusville People Have Learned This Fact

When a healthy man or woman begins to run down without apparent cause, becomes weak, languid, depressed, suffers backache, headache, dizzy spells and urinary disorders, look to the kidneys for the cause of it all. Keep the kidneys well and they will keep you well. Doan's Kidney Pills cure sick kidneys and keep them well. Here is Titusville testimony to prove it.

Mrs. Calvin Hunt, living in Titusville, Fla., says: "Prior to using Doan's Kidney Pills I suffered severely from dull, nagging backaches. There was also a soreness and lameness across the small of my back which bothered me both day and night. If I stooped I could hardly straighten. No position I assumed was comfortable and mornings upon arising my back would be very lame. My housework became a burden and some days I was hardly able to attend to my duties. It was finally my good fortune to hear of Doan's Kidney Pills, and I procured a box. Since using them I have been free from backaches, the lameness and soreness has vanished and I can now do my work with ease and comfort. You are welcome to use my name as one who can recommend Doan's Kidney Pills very highly."

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Remember the name—Doan's—and take no other.

A DETECTIVE'S RUSE.

Clever Method by Which He Secured Some Evidence.

"I had to resort to a queer ruse once to get an admission from a man I was after," said a private detective. "There had been some trouble at a club between two young men. One threw a glass of wine into the other's face. The other did not resent the insult as he should have done. When his father heard of it he threatened to disinherit his son unless he whipped the man who had thrown the wine in his face. The father was a member of the same club, and he made a wager of a wine supper that his son could and would whip the other fellow. Soon after this the son met the man who had insulted him and whipped him. The fight occurred on a prominent street, and as two of the young man's friends were with him at the time there was talk of an action against them and his father for conspiracy. Our agency was retained to get the evidence needed.

"It was decided that it would be necessary to get an admission from the father of the young man who had made the assault. I was told to get it. I tried many ways and failed. He did not know I was a detective. He had known me for a number of years, but thought I was engaged in other work. I had another plan to get from him what I wanted. I told him a New York publication was having the affair written up and illustrated.

"I said I had seen the picture of the fight which had been prepared for it. He was pleased at the publicity that the fight was to get, for the story of the affair at the club had been printed, and he wanted it known that his son had avenged the insult. I intimated that if he cared to see it I thought I could get him the picture that had been prepared for publication. He was eager to see it.

"I had a friend, a newspaper artist, who made me a picture. He made a faithful copy of the street scene where the fight occurred, and he made a fair likeness of the figures in it. The picture showed one man stealing up behind another and striking him from the rear. Behind him were two other men, who were supposed to have accompanied him to see fair play. The father was thought to have been in the neighborhood, but as he wasn't seen he was left off the picture. He examined it carefully.

"Who are these two men?" he asked, pointing to the two onlookers.

"They are the two Blacks, who went along with your son to see that he got fair play," I told him.

"That's all right," he said, "but who is this?" pointing at the man who was striking at the other from behind.

"Why, that's your son," I told him.

"That's a lie!" he exclaimed. "My son stood right in front of him and hit him squarely in the face. I told him to do that and stand up in front of him all the time. I was right across the street, and the two men who were with my son were close enough to see all that happened. They will tell you that he did not hit him from behind. He faced him fairly and whipped him fairly. That was the way we made it up to do. If that's printed I'll whip the man who made it!"

"It wasn't printed, nor were there any court proceedings taken on account of the alleged conspiracy. The men concerned in it on both sides got together and settled it out of court."—Exchange.

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This is a very important application, for a liberal supply of food at this time increases the size of the fruit and gives a large bearing surface for next year's crop. You cannot afford to economize (?) on fertilizer. Neither should you delay about applying it. Nature calls for help in May and this is the time when fertilizer will do the trees the most good. Later applications prolong the growth and therefore the maturing of the fruit, thus making the cropland and sapping the vitality of soil. Write to us about them and ask for our booklet, "Good Old Summer Time in the Orange Groves."

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